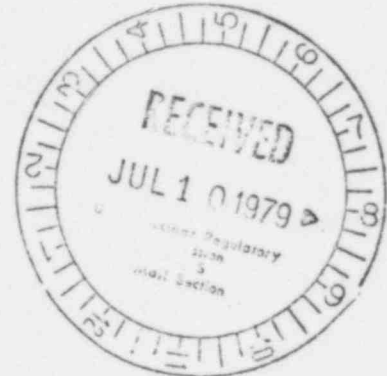


PDR 40-8725

Gulf Mineral Resources Co.

1720 So. Bellaire St.
Denver, CO 80222

July 5, 1979



Mr. James L. Mackin
New Mexico Environmental Improvement Division
P. O. Box 2348
Santa Fe, New Mexico 87503

Dear Mr. Mackin:

At the NMEID/NRC/GMRC review of the Mt. Taylor mill license application in Santa Fe on June 19, the NRC representatives advised NMEID that certain additional analyses be performed by GMRC to evaluate below grade burial options in addition to the surface impoundment proposed in our license application. This advice is summarized in Attachment 2 to the minutes of the meeting, a copy of which is attached.

GMRC has decided to respond to this request and has initiated a program to obtain the necessary additional data and perform appropriate analyses. Our target is to complete the work by August 30, 1979.

The work will include the following:

- 1) All work will be based upon disposal of 24 million tons of total tails. In addition to the total disposal case, one case will be developed providing for disposal of 12 million tons which will be that portion remaining after 50% is used for mine backfill.
- 2) Additional laboratory work will be conducted on new samples of total tailings and slimes fraction (total tails minus sands equivalent to 50% of total tails weight) to obtain dry densities. In addition, the currently available data on slimes density will be reviewed. It is expected that dry densities can be confirmed by August 1.
- 3) When dry densities are established, the impact on the size of the proposed dam will be determined, and tailings burial facilities will be sized.
- 4) All recommended work for La Polvadera Canyon given in Attachment 2 [items 1) through 6)] will be accomplished.
- 5) For the Lower San Lucas Long Dam site, additional drilling is underway to provide the necessary information for completion of the recommended

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analyses. Six holes will be drilled in the area bounded by the mill site, Forest Service land, and the existing San Lucas Dam. These holes will penetrate the Point Lookout formation and cores will be obtained and examined.

6) Seepage analyses will be extended to include the effects of below grade disposal in La Polvadera Canyon and in Lower San Lucas Long Dam sites.

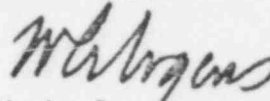
7) Means of disposal of excess decant liquor from below grade burial will be evaluated for each option.

8) Both La Polvadera Canyon and Lower San Lucas Long Dam below grade burial site plans will include a plan for reclamation.

9) Economic comparisons of the alternate disposal schemes will be made.

It is anticipated that a meeting with NMEID, NRC, and GMRC representatives will be required around the week of July 30 to ensure that the report submitted by the end of August will include all the information NMEID and NRC will require.

Sincerely,



W. L. Rogers

WLR:rw

cc: Mr. Hub Miller - NRC ← THIS COPY FOR

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ATTACHMENT 2

The following summarizes the advice given New Mexico EID by NRC on the Gulf Mineral Resources Co. Mt. Taylor Mill License Application tailings management plan.

- . Evaluate volume of tailings to be disposed for the life of the project based on realistic dry density of the climes, sands and total tails. One estimate should assume backfill of sands with weight equal to 50% of total tails.
- . Evaluate how this reworked volume of tailings will affect the size of the proposed dam.
- . For La Polvadera Canyon evaluate:
 - 1) the depth to which below grade cells can be excavated (alluvium and rippable bedrock);
 - 2) the cost of excavating this material;
 - 3) the staging or configuration of the cells;
 - 4) the effect of the cell configuration on seepage analyses;
 - 5) whether the revised seepage analyses requires that the cells be lined, and the cost associated therewith;
 - 6) disposal of tailings in an area which extends further towards the mouth of the canyon than the presently proposed dam site.
- . For Lower San Lucas Long Dam site the analysis performed in the ER amendment 1 will be re-evaluated given: (a) revised assumptions on tailings density; (b) disposal of 50% of sands in deep mine; and (c) more efficient cell arrangements or configurations.
- . The objectives for the above two items are consistent with NRC's desire to dispose of tailings below grade as a prime option.

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